Amendments to the Claims:

1. (Cancelled)

2. (Previously Amended) A recombinant expression cassette comprising the polynucleotide of claim 12 operably linked to a promoter.

3. (Original) A host cell comprising the recombinant expression cassette of claim 2.

4. (Previously Amended) A transgenic plant comprising the recombinant expression cassette of claim 2.

5. (Original) The transgenic plant of claim 4, wherein said plant is a monocot.

6. (Original) The transgenic plant of claim 4, wherein said plant is a dicot.

7. (Previously Amended) The transgenic plant of claim 4, wherein said plant is selected from the group consisting of maize, soybean, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, and millet.

8. (Previously Amended) A transgenic seed from the transgenic plant of claim 4, wherein the seed comprises the recombinant expression cassette.

9. (Currently Amended) A method of modulating the level of RAD51C in a plant, comprising:

(a) introducing into a plant cell a recombinant expression cassette comprising the polynucleotide of claim 12 operably linked to a promoter;

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(b) culturing the plant cell under plant cell growing conditions;

(c) regenerating a whole plant which possesses the transformed genotype; and

(d) ~~inducing expression of~~ expressing said polynucleotide for a time sufficient to modulate the level of RAD51C in said plant.

10. (Previously Amended) The method of claim 9, wherein the plant is selected from the group consisting of maize, soybean, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, and millet.

11. (Withdrawn)

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12. (Currently Amended) An isolated polynucleotide selected from the group consisting of:

(a) a nucleic acid sequence having at least 90% sequence identity over the entire length of SEQ ID NO: 1, as determined by the GAP program under default parameters, wherein said sequence encodes a polypeptide ~~which participates in a complex which enhances recombinase activity~~ involved in DNA double strand break repair; and

(b) a nucleic acid sequence which is fully complementary to the nucleic acid sequence of (a).

13. (Cancelled)

D3

14. (Currently Amended) An isolated polynucleotide comprising a nucleic acid sequence which selectively hybridizes to the full-length complement of SEQ ID NO: 1, under high stringency ~~stringent~~ hybridization conditions and a wash in 0.1X SSC at 60°C, wherein high stringency ~~stringent~~ hybridization conditions comprise 50% formamide, 1M NaCl, and 1% SDS at 37°C, or

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wherein the sequence encodes a polypeptide ~~which participates in a complex which enhances recombinase activity~~ involved in DNA double strand break repair.

15. (Cancelled)

16. (Previously Added) The isolated polynucleotide of claim 12, wherein the nucleic acid sequence of (a) has at least 95% sequence identity to SEQ ID NO: 1.

17. (Previously Added) The isolated polynucleotide of claim 12, wherein the polynucleotide is SEQ ID NO: 1.

18. (Previously Added) A recombinant expression cassette comprising the polynucleotide of claim 14 operably linked to a promoter.

19. (Previously Added) A host cell comprising the recombinant expression cassette of claim 18.

20. (Previously Added) A transgenic plant comprising the recombinant expression cassette of claim 18.

21. (Previously Added) The transgenic plant of claim 20, wherein said plant is a monocot.

22. (Previously Added) The transgenic plant of claim 20, wherein said plant is a dicot.

23. (Previously Added) The transgenic plant of claim 20, wherein said plant is selected from the group consisting of maize, soybean, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, and millet.

24. (Previously Added) A transgenic seed from the plant of claim 20, wherein the seed comprises the recombinant expression cassette.

25. (Currently Amended) An isolated polynucleotide comprising a member selected from the group consisting of:

(a) a nucleic acid sequence encoding a polypeptide having at least 90% sequence identity over the entire length of SEQ ID NO: 2, as determined by the GAP algorithm under default parameters, wherein the encoded polypeptide ~~participates in a complex which enhances recombinase activity~~ involved in DNA double strand break repair; and

(b) a nucleic acid sequence which is fully complementary to the nucleic acid sequence of (a).

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26. (Previously Added) The isolated polynucleotide of claim 25, wherein the nucleic acid sequence of (a) encodes a polypeptide having at least 95% sequence identity to SEQ ID NO: 2.

27. (Previously Added) The isolated polynucleotide of claim 25, wherein the nucleic acid sequence of (a) encodes the polypeptide of SEQ ID NO: 2.

28. (Previously Added) A recombinant expression cassette comprising the polynucleotide of claim 25 operably linked to a promoter.

29. (Previously Added) A host cell comprising the recombinant expression cassette of claim 28.

30. (Previously Added) A transgenic plant comprising the recombinant expression cassette of claim 28.

31. (Previously Added) The transgenic plant of claim 30, wherein said plant is a monocot.

32. (Previously Added) The transgenic plant of claim 30, wherein said plant is a dicot.

33. (Previously Added) The transgenic plant of claim 30, wherein said plant is selected from the group consisting of maize, soybean, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, and millet.

34. (Previously Added) A transgenic seed from the plant of claim 30, wherein the seed comprises the recombinant expression cassette.

35. (Cancelled)